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TI Histamine receptors
AU Watanabe, Takehiko; Yanai, Kazuhiko; Fukui, Hiroyuki
SO Tanpakushitsu Kakusan Koso (1997), 42(3), 327-334
CODEN: TAKKAJ; ISSN: 0039-9450
PB Kyoritsu
LA Japanese

TI Histamine H1 receptor-mediated inhibition of potassium-evoked release of 5-hydroxytryptamine from mouse forebrains.
AU Son L Z; Yanai K; Mobarakeh J I; Kuramasu A; Li Z Y; Sakurai E; Hashimoto
SO BEHAVIOURAL BRAIN RESEARCH, (2001 Oct 15) 124 (2) 113-20.

TI IMPROGAN, A HISTAMINE DERIVATIVE, INDUCES ANTINOCICEPTION IN HISTAMINE
RECEPTOR - DEFICIENT MUTANT MICE.
AU Hough, L. B. (1); Nalwalk, J. W. (1); Mobarakeh, J. I.; Yanai, K.; Stadel,
SO Society for Neuroscience Abstract Viewer and Itinerary Planner, (2002) Vol. 2002, pp. Abstract No. 156.15. http://sfn.scholarone.com. cd-rom. Meeting Info.: 32nd Annual Meeting of the Society for Neuroscience Orlando, Florida, USA November 02-07, 2002 Society for Neuroscience.
DT Conference

TI Activation of spinal histamine H3 receptors inhibits mechanical nociception
AU Cannon, Keri E.; Nalwalk, Julia W.; Stadel, Rebecca; Ge, P.; Lawson, D.;
SO European Journal of Pharmacology (2003), 470(3), 139-147

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Abstract View

IMPROGAN, A HISTAMINE DERIVATIVE, INDUCES ANTINOCICEPTION IN HISTAMINE RECEPTOR-DEFICIENT MUTANT MICE

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Improgan is a chemical congener of the histamine H2 receptor antagonist cimetidine which has powerful painrelieving properties when administered directly into the brain. However, improgan has little or no affinity for known histamine receptors, and is also inactive at 50 other sites. To further assess the role of histamine receptors, the effects of improgan were studied in mutant mice deficient in either H1 H2 or H3 receptors. Improgan was given by icv injection (20- 30 ug) and nociceptive responses were measured in the tail flick, hot water tail immersion, or hot plate tests. Improgan induced maximal or near-maximal antinociception lasting from 20 -90 min in all wild-type control mice. When compared with control mice, improgan induced nearly identical responses in H1 - and H2 - receptor-deficient mice on the tail flick and hot plate nociceptive tests. In addition, H3 - receptor knockout mice showed equivalent or slightly enhanced improgan antinociception on the tail immersion test when compared with wildtype control mice. Because isoforms of the H3 receptor were recently identified, additional experiments measured improgan's affinity for the rat recombinant H3A, H3B and H3C receptors. Improgan (1 uM) had no effect on specific binding to any of these receptors. Taken together, these results show that improgan induces pain relief by mechanisms which are independent of H1 H2 and H3 receptors.
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